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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,788	07/21/2000	Daniele Casalini	12707 P03	4984

7590 11/12/2002
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EXAMINER

KEEHAN, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/12/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/621,788

Applicant(s)

CASALINI, DANIELE

Examiner

Christopher M. Keehan

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Note: in Applicant's Preliminary Amendment, received 10/16/00, the request to amend claim 4 from “; one of claims 1 to 4” to —claim 1—has not been entered. It appears that Applicant should be referring to claim 5.

Specification

The objection to the disclosure has been withdrawn due to Applicant's amendments.

Claim Rejections - 35 USC § 112

The rejection of Claims 19 and 20 has been withdrawn due to Applicant's amendments.

The rejection of Claims 19 and 20 under 35 U.S.C. 101 has been withdrawn due to Applicant's amendments.

Claim Rejections - 35 USC § 102

The rejection of Claims 1-5, and 9-13 under 35 U.S.C. 102(b) as being anticipated by Erickson et al. (5,645,619) has been withdrawn due to Applicant's amendments.

Claim Rejections - 35 USC § 103

The rejection of Claims 6-8 and 17-18 under 35 U.S.C. 103(a) as being unpatentable over Erickson et al. (5,645,619) in view of Swei (5,182,173) has been withdrawn due to Applicant's amendments.

The rejection of Claims 14-16 under 35 U.S.C. 103(a) as being unpatentable over Erickson et al. (5,645,619) has been withdrawn due to Applicant's amendments.

Claim Objections

Claim 5 is objected to because of the following informalities: the chemical formula has an undefined "R" component. Appropriate correction is required.

New Claim Rejections - 35 USC § 102

Claims 1-8, 12, and 16-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Saam (4,244,849). Regarding claims 1-4, Saam discloses a surface coated hard material (col.7, lines 22-26 and Example 3), more specifically calcined alumina (Example 3), the surface of which has a polysiloxane coating (Example 1). Although Saam does not appear to specifically disclose the instantly claimed hardness values, it appears that Saam inherently discloses these values because the materials of Saam are the same as those claimed by Applicant, and the same materials can reasonably be expected to yield products

which inherently have the same properties. If not inherently disclosed, then it would have been obvious to one of ordinary skill in the art at the time the invention was made for the surface of Saam to have an at least similar hardness as instantly claimed, because the materials of Saam are at least similar to those as claimed by Applicant, and at least similar materials would have yielded at least similar properties.

Regarding claims 5-8, Saam discloses the instantly claimed polysiloxane (Example 1).

Regarding claims 12 and 16, Saam discloses a hard material is mixed with a polysiloxane, a polysiloxane emulsion, or a diluted polysiloxane emulsion (Example 1).

Regarding claims 17 and 18, Saam appear to disclose the same materials as Applicant, and therefore appear to inherently disclose the instantly claimed viscosities. If not inherently disclosed by Saam, then it would have been obvious to one of ordinary skill in the art at the time the invention was made to have achieved at least similar viscosities as those claimed by Applicant, because the materials of Saam are at least similar to those of Applicant, and at least similar materials would have yielded at least similar inherent properties.

Claims 1-3, 5-12, and 14, 15, 17, and 18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Swei (5,182,173). Regarding claims 1-3, Swei disclose a surface coated hard material (Abstract), more specifically aluminum oxide (col.2, lines 30-32), the surface of which has a polysiloxane coating (col.2, line 45-col.5, line 29). Although Swei does not appear

to specifically disclose the instantly claimed hardness values, it appears that Swei inherently discloses these values because the materials of Swei are the same as those claimed by Applicant, and the same materials can reasonably be expected to yield products which inherently have the same properties. If not inherently disclosed, then it would have been obvious to one of ordinary skill in the art at the time the invention was made for the surface of Swei to have an at least similar hardness as instantly claimed, because the materials of Swei are at least similar to those as claimed by Applicant, and at least similar materials would have yielded at least similar properties. Although Applicant has argued in the response to the previous office action that the silicone coating of Swei is not the same as Applicant's polysiloxane, this is not clear. A polysiloxane as claimed by Applicant is interchangeably called a silicone, and therefore the coating of Swei appears to be a polysiloxane coating. It is not clear how the silicone of Swei differs from the polysiloxane of Applicant.

Regarding claims 5-8, Swei discloses the instantly claimed polysiloxane (col.2, line 45-col.5, line 29).

Regarding claims 9-11, Swei discloses an amount of silicone that is included in the instantly claimed ranges (col.5, lines 51-61).

Regarding claim 12, Swei discloses a hard material is mixed with a polysiloxane (col.6, lines 44-52).

Regarding claims 14-15, Swei discloses a hard material subjected to a drying temperatures included in the instantly claimed ranges (col.5, lines 35-38). It is the Examiner's position that about 225°C is 200°C.

Regarding claims 17 and 18, Swei appear to disclose the same materials as Applicant, and therefore appear to inherently disclose the instantly claimed viscosities. If not inherently disclosed by Swei, then it would have been obvious to one of ordinary skill in the art at the time the invention was made to have achieved at least similar viscosities as those claimed by Applicant, because the materials of Swei are at least similar to those of Applicant, and at least similar materials would have yielded at least similar inherent properties.

Claim Rejections - 35 USC § 103

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swei (5,182,173) in view of Erickson et al. (5,645,619). Swei, as applied to claim 1 above, are as set forth and incorporated herein. Swei does not appear to disclose a heat treatment of the hard material prior to mixing. Erickson et al. disclose a hard material with a hardness of ≥ 10 GPa, more specifically > 15 GPa, characterized in that aluminum oxide is the basis of the hard material, more specifically calcined and/or sintered alumina (col.11, lines 40-56 and col.13, lines 15-64), and wherein the hard material is exposed to a temperature of about 50-200°C prior to the mixing process (col.10, lines 64-66), which is included in the instantly claimed range. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have heat treated the hard material as taught by Erickson et al. in the process of Swei because Erickson et al. teach that heat treating the hard material in the instantly claimed temperature

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range produces a hard material free of water removes resulting in a higher quality product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (703) 305-2778. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Christopher Keehan *cmk*

November 5, 2002



Robert Dawson
Supervisory Patent Examiner
Technology Center 1700